

Appl. No. 10/774,316
Attorney Docket No.: 2004009
Amdt. dated February 16, 2007
Reply to Office Action of November 16, 2006

RECEIVED
CENTRAL FAX CENTER
FEB 16 2007

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in this application.

Listing of Claims:

1. **(Previously Presented)** A process of manufacturing a blow molded article comprising:
 - (a) blow molding a first composition comprising a first polyethylene into a shaped article;
 - (b) perceiving parison cuffing defects in said process or said blow molded article; and
 - (c) then selecting at least one of the following in response to step (b):
 - (i) providing to said process a second polyethylene having a lower melt index than said first polyethylene, measured according to ASTM D-1238; and
 - (ii) providing to said process a small amount of a low molecular weight polyethylene glycol.
2. **(Currently Amended)** ~~The process according to Claim 1, A process of manufacturing a blow molded article comprising:~~
 - (a) blow molding a first composition comprising a first polyethylene into a shaped article;
 - (b) perceiving parison cuffing defects in said process or said blow molded article; and
 - (c) wherein step (c) comprises providing to said process a second polyethylene having a lower melt index than said first polyethylene, measured according to ASTM D-1238, and having incorporated therein a small amount of a low molecular weight polyethylene glycol.
3. **(Previously Presented)** The process according to Claim 1, wherein the amount of polyethylene glycol provided to said process is from about 400 ppm to about 2000 ppm based on the weight of said composition.

Appl. No. 10/774,316
Attorney Docket No.: 2004009
Amdt. dated February 16, 2007
Reply to Office Action of November 16, 2006

4. **(Previously Presented)** The process according to Claim 1, wherein the amount of polyethylene glycol added is from about 400 ppm to about 1200 ppm based on the weight of the composition.
5. **(Currently Amended)** The process according to Claim 4, wherein the amount of polyethylene glycol added to the composition is ~~no more than~~ from about 400 ppm to about 1100 ppm based on the weight of said composition.
6. **(Currently Amended)** The process according to Claim 4, wherein the amount of polyethylene glycol added is ~~no more than~~ from about 400 ppm to about 800 ppm, based on the weight of said composition.
7. **(Currently Amended)** The process according to Claim 4, wherein the amount of polyethylene glycol added is ~~more than~~ from about 400 ppm to about 700 ppm, based on the weight of said composition.
8. **(Original)** The process according to Claim 1, wherein the polyethylene glycol has a molecular weight of from about 300 to about 500.
9. **(Previously Presented)** The process according to Claim 1, wherein step (c) comprises selecting a least one second polyethylene from HDPE homopolymers having a melt index of from about 0.25 to about 0.80 grams/10 minutes measured according to ASTM D-1238.
10. **(Currently Amended)** The process according to Claim 1, wherein step (c) comprises selecting at least one second polyethylene from HDPE homopolymers having a melt index of from about 0.25 to about 0.80 grams/10 minutes measured according to ASTM D-1238, and having incorporated therein a small amount of a low molecular weight polyethylene glycol and an effective amount of an antioxidant selected from ~~IRGANOXTM 1010 and IRGANOXTM 1076~~.
11. **(Original)** A method of reducing cuffing in the blow molding of a composition comprising HDPE, said method comprising incorporating a small amount of a low molecular

Appl. No. 10/774,316
Attorney Docket No.: 2004009
Amdt. dated February 16, 2007
Reply to Office Action of November 16, 2006

weight polyethylene glycol in said composition prior to blow molding to provide a new composition and then blow molding said new composition:

12. **(Previously Presented)** The method according to Claim 11, wherein said polyethylene glycol is present in the amount of from about 400 ppm to about 1200 ppm based on the weight of the new composition.
13. **(Currently Amended)** ~~The method according to Claim 11,~~ A method of reducing cuffing in the blow molding of a composition comprising HDPE, said method comprising incorporating a small amount of a low molecular weight polyethylene glycol in said composition prior to blow molding to provide a new composition and then blow molding said new composition, wherein said new composition does not contain a fluorocarbon polymer, phosphate, or stearate.
14. **(Original)** The method according to Claim 11, wherein said new composition further comprises an antioxidant selected from hindered phenolics.
15. **(Original)** The method according to Claim 11, wherein said new composition consists essentially of HDPE, polyethylene glycol, and an antioxidant selected from hindered phenolics.
16. **(Original)** The method according to Claim 11, wherein said polyethylene glycol is PEG-400.
17. **(Original)** The method according to Claim 11, wherein said new composition comprises HDPE homopolymer having a melt index range of from about 0.25 to about 0.85 grams/10 minutes according to ASTM D-1238.
18. **(Previously Presented)** A method of manufacturing a blow molded article comprising the steps of:
- providing a first HDPE having a first melt index in a blow molding process and blow molding said first HDPE into an article;
 - detecting unacceptable cuffing in said process;

Appl. No. 10/774,316
Attorney Docket No.: 2004009
Amdt. dated February 16, 2007
Reply to Office Action of November 16, 2006

c. transitioning from said first HDPE in said process to a composition comprising a second HDPE having a second melt index and having incorporated therein a small amount of a low molecular weight polyethylene glycol, wherein said second melt index is lower than said first melt index, measured according to ASTM D-1238; and

d. blow molding the composition comprising said second HDPE into an article.

19. (Original) The method according to Claim 18, wherein said second HDPE has a melt index of from about 0.25 to about 0.80 grams/10 minutes measured according to ASTM D-1238.

20. (New) The method according to Claim 18, wherein said composition does not contain a fluorocarbon polymer, phosphite or stearate.

21. (New) The method according to Claim 18, wherein said composition further comprises an antioxidant selected from hindered phenolics.

22. (New) The method according to Claim 18, wherein said composition consists essentially of HDPE, polyethylene glycol, and an antioxidant selected from hindered phenolics.

23. (New) The method according to Claim 18, wherein said polyethylene glycol is PEG-400.

24. (New) The method according to Claim 18, wherein the composition comprises about 400 ppm to about 1200 ppm of the polyethylene glycol based on the weight of the composition.

25. (New) The process according to Claim 2, wherein the amount of polyethylene glycol provided to said process is from about 400 ppm to about 2000 ppm based on the weight of said composition.

26. (New) The process according to Claim 25, wherein the amount of polyethylene glycol added is from about 400 ppm to about 1200 ppm based on the weight of the composition.

Appl. No. 10/774,316
Attorney Docket No.: 2004009
Amdt. dated February 16, 2007
Reply to Office Action of November 16, 2006

27. (New) The process according to Claim 25, wherein the amount of polyethylene glycol added to the composition is from about 400 ppm to about 1100 ppm based on the weight of said composition.
28. (New) The process according to Claim 25, wherein the amount of polyethylene glycol added is from about 400 ppm to about 800 ppm, based on the weight of said composition.
29. (New) The process according to Claim 25, wherein the amount of polyethylene glycol added is from about 400 ppm to about 700 ppm, based on the weight of said composition.
30. (New) The process according to Claim 2, wherein the polyethylene glycol has a molecular weight of from about 300 to about 500.
31. (New) The process according to Claim 2, wherein the second polyethylene is selected from HDPE homopolymers having a melt index of from about 0.25 to about 0.80 grams/10 minutes, measured according to ASTM D-1238.
32. (New) The process according to Claim 2, wherein the second polyethylene is selected from HDPE homopolymers having a melt index of from about 0.25 to about 0.80 grams/10 minutes measured according to ASTM D-1238, and having incorporated therein a small amount of a low molecular weight polyethylene glycol and an effective amount of an antioxidant.
33. (New) The method according to Claim 13, wherein said polyethylene glycol is present in the amount of from about 400 ppm to about 1200 ppm based on the weight of the new composition.
34. (New) The method according to Claim 13, wherein said new composition further comprises an antioxidant selected from hindered phenolics.
35. (New) The method according to Claim 13, wherein said new composition consists essentially of HDPE, polyethylene glycol, and an antioxidant selected from hindered phenolics.

Appl. No. 10/774,316
Attorney Docket No.: 2004009
Amdt. dated February 16, 2007
Reply to Office Action of November 16, 2006

36. (New) The method according to Claim 13, wherein said polyethylene glycol is PEG-400.
37. (New) The method according to Claim 13, wherein said new composition comprises HDPE homopolymer having a melt index range of from about 0.25 to about 0.85 grams/10 minutes according to ASTM D-1238.